

WHAT IS CLAIMED IS:

1. A system for converting sound into visual representations, comprising:
a plurality of microphones for receiving sound;
a filtering unit for directionally filtering received sound;
a converting unit for converting filtered sound into display control signals;
and
a display unit for displaying visual representations of the filtered sound
based on the display control signals.
2. The system of claim 1, wherein at least one of the plurality of microphones
and the display unit is mounted on a frame configured for attachment to a human
head.
3. The system of claim 2, wherein the plurality of microphones and the
display unit are both mounted on the frame.
4. The system of claim 2, wherein the frame is an eyeglass frame.
5. The system of claim 2, wherein the filtered sound is an audio signal
representing sound originating from a forward direction relative to the frame.

6. The system of claim 1, wherein the microphones are omni-directional microphones.
7. The system of claim 1, wherein the visual representations are text symbols.
8. The system of claim 1, wherein the filtered sound includes speech in a first human language, and wherein the converting unit converts the filtered sound into display control signals associated with text symbols in a second human language.
9. The system of claim 8, wherein the first and second human languages are different.
10. The system of claim 2, wherein the display unit displays the visual representations to a user such that the visual representations appear in the user's forward line of sight when the user is wearing the frame.
11. The system of claim 2, wherein the display unit is integrated to the frame and projects visual representations directly into a lens supported by the frame.

Attorney Docket No.: 10003731

12. The system of claim 2, wherein the display unit projects visual representations onto a screen arranged directly in front of a lens supported by the frame.

13. A method for converting sound to visual representations, comprising the steps of:

receiving sound;

directionally filtering the received sound;

converting the filtered sound into display control signals;

displaying visual representations of the filtered sound based on the display control signals.

14. The method of claim 13, wherein the sound is received and the visual representations are displayed on a frame configured for attachment to a human head.

15. A system for converting sound to visual representations, comprising:

means for receiving sound;

means for directionally filtering the received sound;

means for converting the filtered sound into display control signals;

Attorney Docket No.: 10003731

means for displaying visual representations of the filtered sound based on the display control signals.

16. The system of claim 15, wherein at least one of the receiving means and the displaying means is mounted on a frame configured for attachment to a human head.

17. The system of claim 16, wherein the receiving means and the displaying means are both mounted on the frame.